WHAT IS CLAIMED IS:

1. An actuator system for positioning a piston within a cylinder of a pneumatic circuit, the cylinder having first and second ends, the system comprising:

a compressed air source for providing a flow of compressed air to the pneumatic circuit;

a positioner fluidly connected to the compressed air source and configured for regulating the flow of compressed air into and out of the first and second ends;

first and second pneumatic valving modules fluidly connected to the positioner and to each one of the first and second ends, the first and second pneumatic valving modules each comprising:

first and second volume boosters fluidly connected to the positioner and configured to amplify the flow of compressed air through respective ones of the first and second pneumatic valving modules;

first and second derivative boosters fluidly connected to each one of the first and second ends and configured to alternately supply and exhaust compressed air into and out of the first and second ends;

first and second commutators fluidly connected between respective ones of the first and second derivative boosters and respective

ones of the first and second volume boosters and configured to selectively allow the compressed air to flow therebetween;

a safety valve fluidly connected to the compressed air source and to each one of the first and second commutators, the safety valve being configured to open upon attainment of a predetermined pressurization level of the compressed air such that the first and second commutators may be energized; and

a volume tank fluidly connected to the compressed air source and configured to provide compressed air to each one of the first and second pneumatic valving modules upon energization of the first and second commutators.

2. The actuator system of Claim 1 further comprising:

first and second internal plugs fluidly connected to respective ones of the first and second commutators;

the first and second internal plugs being selectively operative to exhaust compressed air out of the cylinder through alternate ones of the first and second commutators such that the piston may be alternately extended and retracted upon a loss of pressurization of the pneumatic circuit.

3. The actuator system of Claim 1 further comprising:

a volume tank check valve fluidly connected to and interposed between the volume tank and the compressed air source;

the volume tank check valve being oriented such that the flow of compressed air from the volume tank towards the compressed air source may be blocked.

4. The actuator system of Claim 1 wherein:

the first and second derivative boosters each include a first adjustable restriction fluidly connected to respective ones of the first and second commutators; and

each one of the first adjustable restrictions is configured to regulate the point at which respective ones of the first and second derivative boosters are energized such that compressed air from the volume tank may flow into the cylinder.

5. The actuator system of Claim 4 wherein:

the first and second derivative boosters each include a second adjustable restriction fluidly connected to respective ones of the first and second commutators; and

each one of the second adjustable restrictions is configured to regulate the point at which respective ones of the first and second volume boosters are de-energized.

6. The actuator system of Claim 5 wherein the second adjustable restrictions of respective ones of the first and second derivative booster are fluidly connected to respective ones of the first and second volume boosters.

7. The actuator system of Claim 5 wherein the first and second adjustable restrictions are needle valves.

8. The actuator system of Claim 6 wherein:

the first and second volume boosters each include a first adjustable restriction fluidly connected to respective ones of the first and second derivative boosters; and

each one of the first adjustable restrictions is configured to regulate the point at which the first and second volume boosters are toggled between supplying and exhausting compressed air into and out of the cylinder.

9. The actuator system of Claim 8 wherein each of the first and second volume boosters includes a first check valve fluidly connected in parallel to the first adjustable restriction.

10. The actuator system of Claim 9 wherein:

each of the first and second volume boosters includes a second adjustable restriction and a second check valve fluidly connected in parallel to the first adjustable restriction and interposed between each one of the first and second volume boosters and respective ones of the first and second derivative boosters; and

the second adjustable restriction and second check valves are configured to collectively regulate

the point at which the first and second volume boosters are energized.

11. The actuator system of Claim 10 wherein the first and second adjustable restrictions are needle valves.

12. A pneumatic valving module for manipulating a flow of compressed air within a pneumatic circuit, the pneumatic circuit having a positioner and a cylinder with first and second ends, the positioner being configured to regulate the flow of compressed air into and out of the first and second ends, the pneumatic valving module comprising:

a volume booster fluidly connected to the positioner and configured to amplify the flow of compressed air from the positioner;

a derivative booster fluidly connected to the first and second ends and configured to alternately supply and exhaust compressed air into and out of the first and second ends; and

a commutator fluidly connected between the derivative booster and the volume booster and configured to selectively allow the compressed air to flow therebetween.

13. The pneumatic valving module of Claim 12 further comprising:

an internal plug fluidly connected to the commutator;

the internal plug being selectively operative to alternately block and unblock the flow of compressed air out of the cylinder such that the piston may be alternately extended and retracted upon a loss of pressurization of the pneumatic circuit.

14. The pneumatic valving module of Claim 12 wherein:

the pneumatic circuit includes a volume tank configured to provide compressed air to the pneumatic valving module upon energization of the commutator;

the derivative booster includes a first adjustable restriction fluidly connected to the commutator; and

the first adjustable restriction is configured to regulate the point at which the derivative booster is energized such that compressed air from the volume tank may flow into the cylinder.

15. The pneumatic valving module of Claim 14 wherein:

the derivative booster includes a second adjustable restriction fluidly connected to the commutator; and

the second adjustable restriction is configured to regulate the point at which the volume booster is de-energized.

16. The pneumatic valving module of Claim 15 wherein the first and second adjustable restrictions are needle valves.

17. The pneumatic valving module of Claim 16 wherein:

the volume booster includes a first adjustable restriction fluidly connected to the derivative booster; and

the first adjustable restriction is configured to regulate the point at which the volume booster is toggled between supplying and exhausting compressed air into and out of the cylinder.

18. The pneumatic valving module of Claim 17 wherein the volume booster includes a first check valve fluidly connected in parallel to the first adjustable restriction.

19. The pneumatic valving module of Claim 18 wherein:

the volume booster includes a second adjustable restriction and a second check valve fluidly connected in parallel to the first adjustable restriction and interposed between the volume booster and the derivative booster; and

the second adjustable restriction and second check valves are configured to collectively regulate the point at which the volume booster is energized.

20. The pneumatic valving module of Claim 19 the first and second adjustable restrictions are needle valves.